

Application No.: 10/563,731  
Filing Date: January 6, 2006

**AMENDMENTS TO THE CLAIMS**

1. (Previously presented) An adjuvant comprising a cationic surfactant and an apolar fraction or part of the apolar fraction of a total lipid extract of a mycobacterium.
2. (Previously presented) An adjuvant according to claim 1, wherein the part of the apolar fraction of the lipid extract is selected from the group consisting of phthiocerol dimycocerosates, trehalose mycolipenes, glycosylated phenol phthiocerols, thehalose mycolates, sulfolipids, triacylglycerols and menaquinones.
3. (Canceled)
4. (Currently amended) An adjuvant according to claim 1, wherein the surfactant is dimethyldioctadecylammonium-bromide, -chloride, -phosphate or -acetate (DDA)-DDA, dimethyldioctadecenylammoinium -chloride, -phosphate or -acetate (DODA)-DODA, Cholesteryl 3b-N-(dimethylaminoethyl)carbamate hydrochloride (De Chol)-De Chel, or N-[1-  
(2,3-Dioleoyloxy)propyl]-N,N,N-trimethylammonium-chloride (DOTAP)-or DOTAP.
5. (Canceled)
6. (Previously presented) A vaccine comprising the adjuvant according to claim 1.
7. (Previously presented) A vaccine according to claim 6, wherein said vaccine is formulated for parenteral, oral or mucosal administration.
8. (Previously presented) A vaccine according to claim 6, wherein the vaccine comprises an antigenic component comprising an antigenic epitope from a virulent mycobacterium.
9. (Previously presented) A vaccine according to claim 8, wherein the antigenic component comprises an ESAT6-Ag85B hybrid or a fragment thereof.

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10. (Previously presented) An improved vaccine for cancer, allergy or an autoimmune disease, wherein the improvement comprises the adjuvant of claim 1.

11. (Previously presented) A delivery system comprising the adjuvant according to claim 1.

12. (Withdrawn) A method of preparing an adjuvant according to claim 1 comprising:

dissolving a cationic surfactant and an antigenic component that comprises an apolar fraction or part of the apolar fraction of a total lipid extract of a mycobacterium in a solvent;

evaporating said solvent from said dissolved cationic surfactant and antigenic component with a gas;

drying said cationic surfactant and said antigenic component;

bringing said cationic surfactant and said antigenic component into a solution so as to form a thin lipid film; and

formulating the adjuvant of claim 1 from said thin lipid film.

13. (Previously presented) The adjuvant of claim 1, wherein said mycobacterium is BCG, *M. microti*, *M. tuberculosis* or *M. vaccae*.

14. (Previously presented) The adjuvant of claim 2, wherein said glycosylated phenol phthiocerols are phenolic glycolipids.

15. (Previously presented) The vaccine of claim 8, wherein said virulent bacterium is selected from the group consisting of *M. tuberculosis*, *M. bovis* and *M. africanum*.

16. (Withdrawn) An adjuvant comprising a neutral or anionic surfactant and an antigenic component comprising an apolar fraction or part of the apolar fraction of a total lipid extract of a mycobacterium.

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17. (Withdrawn) An adjuvant according to claim 16 wherein the surfactant is DOPE/PC or DOPE/PC/PG.

18. (New) An immunogenic composition comprising an adjuvant and a tuberculosis antigen, wherein said adjuvant comprises a solution prepared from an evaporated mixture of DDA, DODA, or Dc Chol and an apolar fraction of a total lipid extract of BCG, *M. microti*, *M. tuberculosis*, *M. vaccae*, *M. bovis* or *M. africanum* and a solvent.

19. (New) The immunogenic composition of Claim 18, wherein said tuberculosis antigen comprises an ESAT6-Ag85B hybrid or a fragment thereof.

20. (New) An adjuvant consisting essentially of a resuspension of an evaporated mixture of a solvent, a surfactant selected from the group consisting of DDA, DODA, and Dc Chol and an apolar fraction of a total lipid extract of BCG, *M. microti*, *M. tuberculosis*, *M. vaccae*, *M. bovis* or *M. africanum*.

21. (New) An immunogenic composition comprising the adjuvant of Claim 20 and a tuberculosis antigen.

22. (New) The immunogenic composition of Claim 21, wherein said tuberculosis antigen is an ESAT6-Ag85B hybrid or a fragment thereof.

23. (New) The immunogenic composition of Claim 22, wherein said surfactant is DDA.